SYLLABUS

CAD K107 COMPUTER AIDED DRAFTING LAB

CRN 30053 SECTION T2A

THREE RIVERS COMMUNITY COLLEGE NORWICH, CONNECTICUT 06360

CAROL P. MAKARA, INSTRUCTOR PHONE: (860) 886-0268 EMAIL: cmakara@trcc.commnet.edu

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COURSE DESCRIPTION

This laboratory accompanying Computer Aided Drafting utilizes software in an PC environment. Course may be taken concurrently with CAD K106.

OBJECTIVES

The student will be able to

- 1. Describe the computer hardware configuration.
- 2. Input commands from the keyboard, the screen menu, and the pull-down menus.
- 3. Locate points using rectangular and polar coordinate systems in both absolute and relative formats.
- 4. Draw parts using LINE, ARC, CIRCLE, POINT, POLYGON, PLINE, ELLIPSE, SOLID, and DONUT.
- 5. Set up ANSI standard prototype drawing sheets which include layers and linetypes.
- 6. Effectively utilize SNAP, GRID, and ORTHO settings in conjunction with the OSNAP overrides.
- 7. Manipulate the display with PAN, VIEW, and ZOOM options.
- 8. Locate text on a drawing, change text fonts, and apply text styles.
- Modify and construct with ERASE, CHANGE, MEASURE, DIVIDE, FILLET, CHAMFER, TRIM, MOVE, ALIGN, ROTATE, COPY, MIRROR, ARRAY, SCALE, SELECT, BREAK, EXTEND, OFFSET, and STRETCH using GRIPS where appropriate.
- 10. Extract entity information using AREA, ID, LIST, DBLIST, and DIST.
- 11. Copy, delete, rename, and unlock files and list directory information.
- 12. Dimension a drawing according to industry ANSI standards.
- 13. Draw a part showing orthographics and auxiliary views.
- 14. Draw sectional views and graphical patterns.
- 15. Draw and edit polylines.
- 16. Establish dimension styles.
- 17. Create blocks, and insert blocks and XREFs.
- 18. Apply attributes to blocks, and extract attribute information.
- 19. Generate multi-view Paper Space plots.
- 20. Draw a wire-frame model using the User Coordinate System.

METHOD OF EVALUATION

- 1. Student performance on weekly drawing assignments, and on drawing quizzes and examinations.
- 2. Unexcused absences from quizzes and exams will result in a score of 0 for that exam. Excused absences must be requested **in advance** of the in-class exam.
- LAB ASSIGNMENTS

Lab assignments must be submitted on or before the due date and time. Late assignments will be awarded a 0 for that assignment. Any disk submitted for grading that contains a virus will receive a 0 for that assignment. Any damaged disk submitted for grading will also receive a 0. Unexcused absences from lab assignments will also result in a score of 0 for that assignment. Excused absences must be requested in advance of the assignment deadline. Assignments will be graded on professionalism, accuracy, style, and completeness. Details of the lab assignments will be provided separately.

MAKEUP POLICY

Students are required to make up missed drawing assignments and drawing quizzes and examinations resulting from excused absences. Arrangements are to be made on an individual basis with the instructor.

ATTENDANCE POLICY

Students are expected to attend class regularly. No absences of any nature will be construed as relieving you from the responsibility for the completion of all work assigned by the instructor. Absences are discouraged because interaction with the instructor and classmates is an integral part of learning computer software applications. Unexcused absences from exams and quizzes will result in a score of 0 for that test.

EARLY WARNING POLICY

Early intervention will be provided for students in academic difficulty. Tutoring services can be obtained through the Tutoring Center located in the Learning Resource Center at either campus. **The Registrar's Office will be notified in cases of prolonged absences**.

CELL PHONES AND PAGERS POLICY

Students are notified that cellular phones and beepers are allowed in class or in the Learning Resource Center **only if they are turned off or turned to a silent mode**. Under no circumstances are phones to be answered in class. When there are extenuating circumstances that require that a student be available by phone or beeper, the student should speak to the instructor prior to class, so that together they can arrive at an agreement

COLLEGE WITHDRAWAL POLICY

Students may withdraw, in writing at the Registrar's Office, for any reason until the end of the 10th week of classes. From the 11th week through the end of the 13th week, a student may withdraw with the signature of the instructor or advisor.

DISABILITIES STATEMENT

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact the Disabilities Counseling Services at 383-5240. To avoid any delay in the receipt of accommodations, you should contact the counselor as soon as possible. Please note that accommodations based upon disability cannot be provided until the instructor has received an accommodation letter from the Disabilities Counselor.

Shumaker, Terence M. and Madsen, David A. *AutoCAD and Its Applications Basic 2007*. Illinois: The Goodheart-Wilcox Company, Inc., 2007. Storage Media: Memory Stick.

COURSE EVALUATION

Weekly drawing assignments and drawing examinations will be given as outlined above. Weekly drawings will make up 60 percent of the final grade and drawing examinations will make up 40 percent of the final grade.

The following table lists the academic grades used and their corresponding quality points.

| GRADES | DEFINITION | EQUIVALENT | QUALITY POINTS |
|--------|----------------|------------|----------------|
| А | Excellent | 94-100 | 4.0 |
| A- | | 90-93 | 3.7 |
| B+ | | 87-89 | 3.3 |
| В | Good | 83-86 | 3.0 |
| B- | | 80-82 | 2.7 |
| C+ | | 77-79 | 2.3 |
| С | Satisfactory | 73-76 | 2.0 |
| C- | | 70-72 | 1.7 |
| D+ | | 67-69 | 1.3 |
| D | Poor | 63-66 | 1.0 |
| F | Unsatisfactory | | 0.0 |

A student may request an irrevocable Audit status from the Registrar within the Add-Drop Period. Such status may be granted with written approval of the instructor. Audit status is considered a non-academic grade (No grade points).

INSTRUCTOR CANCELLATION OF CLASSES

There may be instances when it will be necessary for the instructor to independently cancel classes such as for illness or personal inability to travel safely to the college. In these instances the instructor will attempt to notify students at least two hours in advance that classes will not be held. Notifications will be made by E-mail to the e-mail address provided by the student.

POLICY ON ACADEMIC INTEGRITY

Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the College. In this class and in the course of your academic career, present only your own best work; clearly document the sources of the material you use from others; and act at all times with honor.

If a class is cancelled for a reason other than a full college closing, students will be notified by email or by phone if a student does not have internet access to email. It is the student's responsibility to check email regularly.

COURSE OUTLINE

| <u>CLASS</u> | DATE | Objectives | TEXT READING | LAB EXERCISE |
|--------------|----------|--|--|--------------|
| 1 | 8/29/07 | Commands and Menus Working with Drawings Introduction to Drawing & Editing | Chapter 1 Chapter 2 Chapter 3 | |
| 2 | 9/5/07 | Layers, Properties, & Printing Drawing Basic Shapes | Chapter 4 Chapter 5 | |
| 3 | 9/12/07 | Object Snap Inquiry Commands | Chapter 6 Chapter 16 | |
| 4 | 9/19/07 | Basic Editing Commands Automatic Editing | Chapter 12 Chapter 13 | |
| 5 | 9/26/07 | Placing Text on Drawings Working with Tables Drawing Display Options | Chapter 8 Chapter 9 Chapter 10 | |
| 6 | 10/3/07 | Basic Dimensioning Practices Editing Dimensions | Chapter 17 Chapter 18 | |
| 7 | 10/10/07 | Dimensioning with Tolerances Geometric Dimensioning & Tolerancing | Chapter 19 Chapter 20 | |
| 8 | 10/17/07 | MIDTERM EXAM | | |
| 9 | 10/24/07 | Layouts, Plotting, and Printing Introduction to Polylines Drawing and Editing Polylines Drawing Section Views | Chapter 11 Chapter 14 Chapter 15 Chapter 21 | |
| 10 | 10/31/07 | Creating Symbols for Multiple Use Dynamic Blocks | Chapter 22 Chapter 23 | |
| 11 | 11/7/07 | Assigning Attributes External References Sheet Sets | Chapter 24 Chapter 25 Chapter 26 | |
| 12 | 11/14/07 | Isometric Drawing Three Dimensional Drawing | Chapter 27 | |
| 13 | 11/28/07 | Multiview Drawings Using Model Space Viewports | Chapter 7 | |
| 14 | 12/5/07 | Advanced Topics, Script Files | Chapter 28 | |
| 15 | 12/12/07 | FINAL EXAM | | |

No class on 11/21/2007